

AMENDMENTS TO THE CLAIMS

Claim 1. (Currently Amended)

A hand-held pen device for recording a track of handwritten information created by the pen device, comprising:

means for recording said information in a digital format and a memory for storing the same, wherein the memory includes:

a first memory unit located in the ~~user unit~~ pen device; and

a second memory unit located in an external data storage device, which memory units are connected in such a way that a transmission of said recorded information is caused to occur automatically from the first memory unit to the second memory unit, and through transmission of the recorded information from the first memory unit to the second memory unit, the recorded information can exceed the storage capacity of the first memory unit and thereby, from the point of view of the user the first memory unit and second memory unit form a coherent memory unit.

Claim 2. (Previously Presented)

A hand-held pen device according to claim 1, further comprising a means for transmission of information between the first and the second memory units, the first memory unit being arranged to receive and store the recorded information from the recording means and the information transmission means being

arranged to transfer according to predetermined rules at least a subset of the recorded information from the first to the second memory unit for storage therein.

Claim 3. (Previously Presented)

A hand-held pen device according to claim 2, in which the information transmission means is arranged to carry out exclusively one-way transmission of information from the first to the second memory unit.

Claim 4. (Previously Presented)

A hand-held pen device according to claim 2, in which said rules comprise transferring said information when the first memory unit has attained a given level of fullness.

Claim 5. (Previously Presented)

A hand-held pen device according to claim 2, in which said rules comprise transferring said information when this has been stored in the first memory unit for a certain period of time.

Claim 6. (Previously Presented)

A hand-held pen device according to claim 2, in which the information transmission means is arranged to carry out wireless transmission of information from the pen device.

Claim 7. (Previously Presented)

A hand-held pen device according to claim 2, in which the information transmission means is arranged to transfer all the recorded information to the second memory unit.

Claim 8. (Previously Presented)

A hand-held pen device according to claim 2, which is arranged, after recording a "send" command, to send all information associated with the "send" command and stored in the first and second memory units to an external information management unit.

Claim 9. (Previously Presented)

A hand-held pen device according to claim 8, in which the information transmission means is arranged, after recording the "send" command, to send a subset of the recorded information associated with the "send" command from the first memory unit to the second memory unit.

Claim 10. (Previously Presented)

A hand-held pen device according to claim 1, in which the recorded information comprises a plurality of absolute positions that form an electronic version of the handwritten information.

Claim 11. (Previously Presented)

A hand-held pen device according to claim 9, which is arranged, after recording the "send" command, to obtain an address for the information management unit, by a request to an external look-up unit and on the basis of said positions.

Claim 12. (Previously Presented)

A hand-held pen device according to claim 11, which is arranged to obtain said address via a communication unit in the external data storage device.

Claim 13. (Previously Presented)

A hand-held pen device according to claim 1, in which the second memory unit has a data storage capacity that is considerably larger than the data storage capacity of the first memory unit.

Claim 14. (Previously Presented)

A hand-held pen device according to claim 1, in which said means for recording handwritten information comprises an image sensor for optical recording of a position code on a base.

Claim 15. (Currently Amended)

A hand-held pen device, comprising:

a means for recording a track of handwritten information created by the pen device; and

a means for transferring information from the pen device, the pen device in a first memory management mode being arranged to store the recorded information in an internal memory unit and, after detection of a "send" command, to communicate at least a subset of the recorded information by means of the information transmission means,

the information transmission means being switchable to a second memory management mode, in which the information transmission means is caused to transfer the recorded information automatically from the internal memory unit to an external memory unit in an external data storage device in such a way that by said transfer the recorded information can exceed the storage capacity of the internal memory unit and thereby, from the point of view of the user, the memory units form a coherent memory unit.

Claim 16. (Previously Presented)

A hand-held pen device according to claim 15, which, in the second memory management mode and after the detection of the “send” command, is arranged to cause the information transmission means to transfer the “send” command and all information associated with the “send” command in the internal memory unit to the external memory unit.

Claim 17. (Previously Presented)

A hand-held pen device according to claim 15, which, in the second memory management mode, is arranged to carry out exclusively one-way transmission of information from the internal to the external memory unit, and to communicate all information associated with the “send” command via a communication unit in the external data storage device.

Claim 18. (Currently Amended)

A system for information management, comprising:

an information management unit; and

a hand-held pen device which is designed for recording a track of handwritten information created by the pen device, the pen device being arranged to store the recorded information in a memory and to communicate a required

part thereof to the information management unit via a communication network, wherein the memory includes:

a first memory unit located in the pen device; and

a second memory unit located in an external data storage device, which memory units are connected in such a way that a transmission of said recorded information is caused to occur automatically from the first memory unit to the second memory unit, and through a transmission of the recorded information from the first memory unit to the second memory unit the recorded information can exceed the storage capacity of the first memory unit and thereby, from the point of view of a user, the first memory unit and the second memory unit form a coherent memory unit.

Claim 19. (Previously Presented)

A system according to claim 18, in which the first memory unit is arranged to receive and store the recorded information and in which the pen device is arranged to transfer in accordance with predetermined rules at least a subset of the recorded information from the first to the second memory unit for storage therein.

Claim 20. (Previously Presented)

A system according to claim 19, in which the pen device is arranged to carry out exclusively one-way transmission of information from the first to the second memory unit, and to communicate the required part of the recorded information to the information management unit via a communication unit in the external data storage device.

Claim 21. (Previously Presented)

A system according to claim 18, which is arranged, after recording a “send” command, to send all the information associated with the “send” command and stored in the first and second memory units to the information management unit.

Claim 22. (Previously Presented)

A system according to claim 21, in which the pen device is arranged, after recording the “send” command, to send a subset of the recorded information associated with the “send” command, from the first memory unit to the external data storage device.

Claim 23. (Previously Presented)

A system according to claim 21, further comprising a base with a position code, in which the pen device comprises an image sensor for optical recording of the position code and a processor unit for converting the recorded position code



into absolute positions that form an electronic version of the handwritten information, and in which the pen device is arranged to obtain an address for the information management unit, after recording the “send” command, by a request to an external look-up unit and on the basis of said positions.

Claim 24. (Previously Presented)

A system according to claim 23, in which the pen device is arranged to obtain said address via a communication unit in the external data storage device.

Claim 25. (Previously Presented)

A system according to claim 18, in which the external data storage device comprises a network server with an interface that allows a user of the pen device to access the recorded information.

Claim 26. (Currently Amended)

A method for providing memory capacity for a user of a hand-held pen device which is designed for recording and communicating a track of handwritten information created by the pen device, comprising the steps of:

reserving memory capacity for the pen device in an external data storage device;

receiving, automatically, recorded information from a memory located in the pen device and storing the same in the external data storage device, and sending the recorded information to an information management unit in response to a “send” command.

Claim 27. (Previously Presented)

A method according to claim 26, comprising the step of charging the user on the basis of the memory capacity reserved for the user in the external data storage device.

Claim 28. (Previously Presented)

A method according to claim 26, comprising the step of storing the received information for a predetermined period of time from the time of recording, the user being charged on the basis of the length of the period of time.

Claim 29. (Previously Presented)

A method according to claim 26, in which the “send” command is received from the pen device.

Claim 30. (Currently Amended)

A method for memory management in a pen device, which is arranged to record a track of handwritten information created by the pen device, comprising the steps of:

storing the recorded information in a first memory unit in the pen device;  
and

transferring at least a subset of the recorded information from the first memory unit to a second memory unit in an external data storage device in such a way that a transmission of said recorded information is caused to occur automatically from the first memory unit to the second memory unit, and the recorded information can exceed the storage capacity of the first memory and thereby, from the point of view of a user, the first and second memory units form a coherent memory unit.